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PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) 070759-0033	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]	Application Number 10/531,391	Filed April 15, 2005
on _____	First Named Inventor	Masashi WATANABE, et al.
Signature _____	Art Unit	Examiner
Typed or Printed Name _____	2828	Xinning Niu

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☒ attorney or agent of record. Registration number 60.453
- ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

Signature

Tomoki Tanida

Typed or printed name

(202) 756-8000

Telephone number

October 5, 2009

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

Remarks for Pre-Appeal Brief Request for Review

Claims 1, 2, 4, 5, and 9 are pending in this application, of which claim 1 is independent.

Claims 1, 2, 4, 5, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over De Poorter (U.S. Patent No. 5,578,863) in view of Onomura et al. (U.S. Patent Application Publication No. 2002/0039374, hereinafter "Onomura") and M. Takeya et al. "High-Power AlGaInN Lasers for Blue-ray Disc System," PROC of SPIE, vol. 4995, pgs. 117-122, January 2003 (hereinafter "Takeya"). *See* the Office Action dated June 5, 2009 ("Office Action") on pages 2-5.

There are clear errors in the Examiner's position because De Poorter, Onomura, and Takeya, individually or in combination, do not disclose or suggest a semiconductor laser device including all the limitations recited in independent claim 1. Specifically, the applied combination of the references does not teach, among other things, that "an atmospheric gas inside the package is a mixture gas containing oxygen and nitrogen, with an oxygen content of more than 20%, and the semiconductor laser device has a MTTF of 3,000 hours or more at 70°C," as recited in claim 1.

In the Office Action, the Examiner asserted as follows (the first full paragraph on page 4 of the Office Action):

> Takeya et al. disclose: AlGaInN laser device with mean time to failure of over 5000 hours under 50mW continuous wave operation at 70°C (page 121, abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made use the laser device of Takeya in the invention of De Poorter in order to increase the lifetime of the laser device.

Appellants emphasize that simply applying Takeya to De Poorter and Onomura do not arrive at the claimed subject matter. Takeya discloses achieving an MTTF of 5,000 hours "by optimizing the position of the Mg-doped layer and introducing an undoped AlGaN layer between the active layer and the Mg-doped electron-blocking layer" (Abstract). In contrast, claim 1

recites having an MTTF of 3,000 hours or more by using a mixture gas containing oxygen and nitrogen as an atmospheric gas inside the package with an oxygen content more than 20%. Takeya does not teach or suggest such a concentration of oxygen inside a package, i.e., does not teach achieving the MTTF of 5,000 hours at least under the claimed oxygen concentration. However, the Examiner did not provide any evidential support as to why and how modifying De Poorter and Onomura based on the teachings of Takeya can achieve the MTTF of 5,000 hours under the claimed oxygen concentration.

Even if the combination of De Poorter, Onomura, and Takeya is assumed proper for the sake of this response, the applied combination does not teach at least having the MTTP of 3,000 hours or more under the claimed oxygen concentration. Rather, it may be necessary to apply an arrangement including a Mg-doped layer and an undoped AlGaN layer described in Takeya to De Poorter to achieve the MTTF of 5,000 hours. Such an arrangement appears to be considerd unnecessary for De Poorter. Therefore, Appellants believe that it would not have been obvious for a person skilled in the art to conceive the claimed subject matter which has an MTTF of 3,000 hours or more by controlling an oxygen concentration, irrespective of a Mg-doped layer.

Again, Takeya discloses achieving an MTTF of 5,000 hours "by optimizing the position of the Mg-doped layer and introducing an undoped AlGaN layer between the active layer and the Mg-doped electron-blocking layer." Takeya does not teach achieving the MTTF of 5,000 hours at least under the claimed oxygen concentration.

On page 2 of the Advisory Action dated September 24, 2009 ("Advisory Action"), the Examiner further asserted as follows:

> In this case De Pooter in view of Ononura disclose "atmospheric gas inside the package is a mixture gas containing oxygen and nitrogen with an oxygen content of more than 20%" as recited in claim 1. Takeya teaches a GaN laser with a MTTF of 3,000 hours or more at 70 degrees Celsius. It would have been obvious

to one of originally skill in the art to use the laser of Takeya in the apparatus of De Pooter in order to obtain a laser with a longer lifetime.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., having a MTTF of 3,000 hours or more by controlling an oxygen concentration) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

As discussed above, Appellants' position is that simply applying Takeya to De Poorter and Onomura do not arrive at the claimed subject matter. Appellants described why simply applying Takeya to De Poorter and Onomura do not arrive at the claimed subject matter in the Response dated September 4, 2009. The Examiner's comments in the Advisory Action still do not provide any justifiable reasons as to why and how modifying De Poorter and Onomura based on the teachings of Takeya can achieve the MTTF of 5,000 hours under the claimed oxygen concentration. Takeya discloses achieving an MTTF of 5,000 hours "by optimizing the position of the Mg-doped layer and introducing an undoped AlGaN layer between the active layer and the Mg-doped electron-blocking layer." Takeya does not teach achieving the MTTF of 5,000 hours at least under the claimed oxygen concentration.

Based on the foregoing, there are clear errors in the Examiner's position because De Poorter, Onomura, and Takeya, individually or in combination, do not disclose or suggest a semiconductor laser device including all the limitations recited in independent claim 1. Dependent claims 2, 4, 5, and 9 are also patentably distinguishable over De Poorter, Onomura, and Takeya at least because these claims respectively include all the limitations recited in independent claim 1. Appellants respectfully solicit withdrawal of the rejection under35 U.S.C. § 103(a), and favorable consideration thereof.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

Tomoki Tanida
Registration No. 60,453

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000
Facsimile: 202.756.8087
Date: October 5, 2009

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